

**MERINGIS BILSINGI, A NEW ECTOPARASITE OF THE ORD
KANGAROO RAT, DIPODOMYS ORDII WOODHOUSE**

(SIPHONAPTERA, HYSTRICHOPSYLLIDAE)

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During the course of West Texas sylvatic plague studies being conducted cooperatively by the United States Public Health Service and the Texas State Department of Health, a new species of flea of the genus *Meringis* Jordan has been taken. The specific characteristics are presented in this paper.

***Meringis bilsingi*, new species**

Holotype male. Clypeus evenly rounded, frontal tubercle absent; eyes vestigial; maxillary palpi reaching only two-thirds of the distance of fore coxae, all four segments well supplied with fine bristles, fourth segment with eight short lateral spiniforms toward apex in addition to the bristles; five-segmented labial palpi longer than the maxillary palpi, reaching about three-fourths of the distance of the fore coxae; preantennal region of head with a genal comb and two rows of bristles, the outer genal tooth overlapping the longer, more slender inner tooth the lower row of four large bristles and the upper row of three smaller ones; scape of antenna with a very small basal bristle and a row of four longer ones on apical third of the segment, pedicel with bristles reaching only to the second segment of the nine-segmented clava; postantennal region of the head with three rows of five bristles each, the basal row with four smaller bristles interspersed among the five larger ones, nine small bristles along margin of antennal fossa; pronotum with comb of fourteen teeth preceded by a row of alternating large and small bristles; notum of mesothorax with four rows of bristles, the first two rows irregular, the second and third rows of about six bristles, mesonotum also with four slender bristle-like extensions of the cuticle toward posterior margin; mesepisternum with five bristles; metanotum with three rows of bristles, the first row incomplete; front femora with about five, lateral bristles; coxa III with a row of six to eight spiniforms on inner surface; fifth tarsal segment of each leg with four lateral plantar bristles and a basal submedian pair. MODIFIED SEGMENTS: three antepygidial bristles, the median one the largest; sternite VIII without apical arm; sternite IX with distal arm tapering toward apex which bears a lightly pigmented, stout spine and a long, slender bristle just below it, on ventro-caudal border a large spiniform and six or seven bristles; process of clasper slender, rounded at apex and bearing three small bristles; movable finger of clasper thick, slightly tapering toward bluntly rounded apex, caudal margin convex and cephalic margin almost straight; four rows of bristles on the finger, seven or eight small bristles on dorso-cephalic margin, a mesial row of three stout bristles on ventral half, an irregular row of five or six small bristles toward caudal

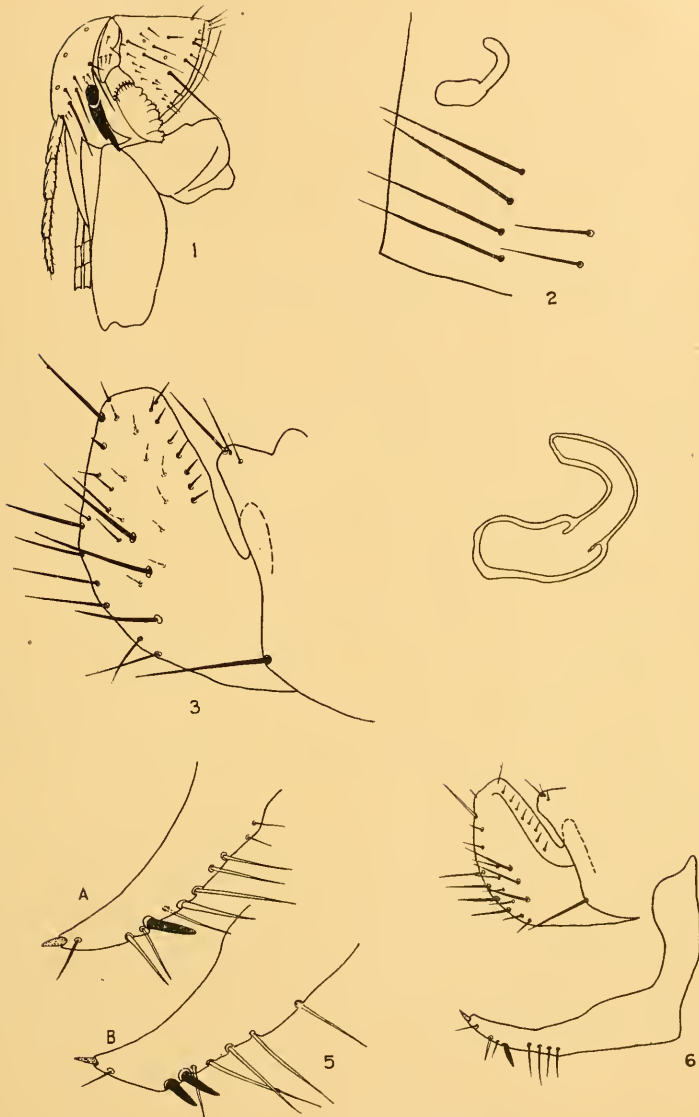


PLATE 8. MERINGIS BILSINGI

Fig. 1, male head; fig. 2, female seventh sternite; fig. 3, process and movable finger of male clasper; fig. 4, female spermatheca; fig. 5, (A) male sternite IX of *M. bilsingi*, (B) male sternite IX of *M. dipodomys*; fig. 6, *M. bilsingi* male process, movable finger of clasper and sternite IX.

margin and about ten larger bristles on the caudal margin of the ventral half of the finger, a single large bristle on dorso-caudal margin.

Allotype female. General chaetotaxy similar to the male. MODIFIED SEGMENTS: Sternite VII without a sinus, posterior border almost straight, a lateral row of four stout bristles and a cephalad group of three smaller ones present; spermatheca body and arm about the same length, body twice as thick and with both dorsal and ventral borders convex, arm sharply curved; style around three times as long as width at base, at apex a very long bristle and two minute ones.

Type locality: Near Tokio, Terry County, Texas.

Type host: *Dipodomys ordii* Woodhouse.

Types: Holotype and allotype collected by V. I. Miles, Jan. 8, 1948.

Paratypes: A male and female from Cochran County, Texas, collected from *Dipodomys ordii*, Dec. 18, 1947, by Halyard and George; a female from Cochran County, Texas, by same collectors from same host, Dec. 17, 1947; one male from Terry County, Texas, collected by V. I. Miles from *Onychomys leucogaster* (Wied.); by V. I. Miles from *Dipodomys ordii*, one male, Jan. 6, 1948, two females, Jan. 8, 1948 and one female, Dec. 30, 1947.

The holotype and allotype have been deposited in the collection of the U. S. National Museum, Washington, D. C.

This flea is related to *M. arachis* (Jordan) and *M. dipodomys* Kohls. The movable finger of the male clasper of *M. bilsingi* is distinctive in being bluntly rounded at its apex and in the possession of three or four heavy mesial bristles. *M. dipodomys* and *M. arachis* have two spiniforms on the ventro-caudal margin of the apical arm of sternite IX while *M. bilsingi* has only one.

The species is named for Dr. S. W. Bilsing, who has been an inspiration to all who have studied in the Entomology Department of Texas A. & M. College, College Station, Texas.

Mr. Frank M. Prince, Plague Suppressive Measures, United States Public Health Service, was very helpful in checking the specific status of this flea. Col. G. H. Bradley, Chief, Entomology Division, Communicable Disease Center, United States Public Health Service, made several suggestions in the preparation of the manuscript.

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